

PATENT

IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: CHEUNG et al.

Attorney Docket No.: IPVBP004

Application No.: 10/826,537

Examiner:

Filed: April 15, 2004

Group: 2644

Title: METHOD AND APPARATUS FOR
LOCALIZED DELIVERY OF AUDIO
SOUND FOR ENHANCED PRIVACY

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail to: Commissioner for Patents, Washington, DC 20231 on January 18, 2005

Signed: _____

Maria Shih

INFORMATION DISCLOSURE STATEMENT
37 CFR §§1.56 AND 1.97(b)

Commissioner for Patents
Washington, DC 20231

Dear Sir:

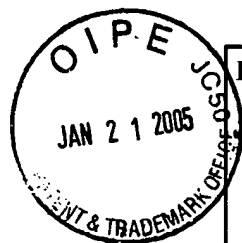
The references listed in the attached PTO Form 1449, copies of non-US patent publications/applications are attached, may be material to examination of the above-identified patent application. Applicants submit these references in compliance with their duty of disclosure pursuant to 37 CFR §§1.56 and 1.97. The Examiner is requested to make these references of official record in this application.

This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

This Information Disclosure Statement is: (i) filed within three (3) months of the filing date of the above-referenced application, (ii) believed to be filed before the mailing date of a first Office Action on the merits, or (iii) believed to be filed before the mailing of a first Office Action after the filing of a Request for Continued Examination under §1.114. Accordingly, it is believed that no fees are due in connection with the filing of this Information Disclosure Statement.

Respectfully submitted,

C. Douglass Thomas
Reg. No. 32, 947



Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVBP004
	Application No.:	10/826,537
	Applicant	Cheung et al.
	Filing Date	April 15, 2004
	Group	2644
		Page 1 of 4

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	1.	3,974,335	Aug-76	Blackledge			
	2.	2002/0090103 A1	Jul-02	Calisto, JR.			
	3.	6,058,315	May-00	Clark			
	4.	2003/0118198 A1	Jun-03	Croft, III et al.			
	5.	6,535,612 B1	Mar-03	Croft, III et al.			
	6.	6,584,205 B1	Jun-03	Croft, III et al.			
	7.	5,648,824	Jul-97	Dunn et al.			
	8.	5,802,190	Sep-98	Ferren			
	9.	2003/0092377 A1	May-03	Hill			
	10.	2002/0048382 A1	Apr-02	Hou			
	11.	2002/0183648 A1	Dec-02	Hou			
	12.	6,322,521 B1	Nov-01	Hou			
	13.	5,835,732	Nov-98	Kikinis et al.			
	14.	2003/0035552 A1	Feb-03	Kolano et al.			
	15.	5,793,875	Aug-98	Lehr et al.			
	16.	5,313,663	May-94	Norris			
	17.	2001/0055397 A1	Dec-01	Norris et al.			
	18.	2003/0091200 A1	May-03	Pompei			
	19.	6,086,541	Jul-00	Rho			
	20.	2002/0048385 A1	Apr-02	Rosenberg			
	21.	5,943,430	Aug-99	Saitoh			
	22.	6,011,855	Jan-00	Selfridge et al.			
	23.	5,357,578	Oct-94	Taniishi			
	24.	6,650,755 B2	Nov-03	Vaudrey et al.			
	25.	6,477,258 B1	Nov-02	Watson et al.			
	26.	6,496,205 B1	Dec-02	White et al.			
	27.	5,572,575	Nov-96	Yamamoto et al.			
	28.	2002/0054689 A1	May-02	Zhang et al.			
	29.	6,453,045 B1	Sep-02	Zurek et al.			

Foreign Documents

Examiner	Date Considered
----------	-----------------

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVBP004
	Application No.:	10/826,537
	Applicant	Cheung et al.
	Filing Date	April 15, 2004
	Group	2644
		Page 2 of 4

Init.		Document No.	Date	Country	Class	Subclass	Translation	
							Yes	No

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

	A	"Audio Spotlight - Put sound where you want it," Holosonic Research Labs, Inc., 2002, www.holosonics.com/technology.html (downloaded 1/18/2004)
	B	"Technology Introduction," American Technology Corporation, 2001, pp.1-19.
	C	"Technology Licensing - HyperSonic Sound," American Technology Corporation, 2003, pp. 1-3.
	D	"Theory, History, and the Advancement of Parametric Loudspeakers - A Technology Overview," White Paper, American Technology Corporation, 2002, pp. 1-27.
	E	"HSS Directed Audio Sound System, Model Series: 220," Product Information, American Technology Corporation, 2003.
	F	A. C. Baker, "Nonlinear pressure fields due to focused circular apertures," The Journal of the Acoustical Society of America, 91(2), February 1992, pp. 713-717.
	G	A.L. Vyas et al., "Design Considerations of Parametric Arrays," IEEE Proceedings of the 1998 International Symposium on Underwater Technology, 15-17 April 1998, pp. 98 – 102.
	H	B. G. Lucas et al., "Field of a parametric focusing source," The Journal of the Acoustical Society of America, 73 (6), June 1983, pp. 1966-1971.
	I	B.G. Lucas et al., "The field of a focusing source," The Journal of the Acoustical Society of America, 72(4), October 1982, pp. 1289-1296.
	J	B.W. Lawton, "Damage to human hearing by airborne sound of a very high frequency or ultrasonic frequency," Institute of Sound and Vibration Research, Contract Research Report 343/2001, 2001, pp. 1-77.
	K	C. M. Darvennes et al., "Scattering of sound by sound from two Gaussian beams," The Journal of the Acoustical Society of America, 87(5), May 1990, pp. 1955-1964.
	L	C.M. Darvennes et al., "Effects of absorption on the nonlinear interaction of sound beams," The Journal of the Acoustical Society of America, 89(3), March 1991, pp. 1028-1036.
	M	D. Marculescu et al., "Ready to Ware," IEEE Spectrum, October 2003, pp. 28-32.
	N	D.I. Havelock, "Directional Loudspeakers Using Sound Beams," J. Audio Eng. Soc., Vol. 48, No. 10, October 2000, pp. 908-916.
	O	E.A. Zabolotskaya et al., "Quasi-plane Waves in the Nonlinear Acoustics of Confined Beams," Soviet Physics-Acoustics, Vol. 15, No. 1, July-Sept. 1969, pp. 35-40.
	P	F.J. Pompei, "The Use of Airborne Ultrasonics for Generating Audible Sound Beams," J. Audio Eng. Soc., Vol. 47, No. 9, September 1999, pp. 726-731.
	Q	G. Garrett et al., "Nearfield of a large acoustic transducer, Part II: Parametric radiation," The Journal of the Acoustical Society of America, 74(3), September 1983, pp. 1013-1020.
	R	G. Garrett et al., "Nearfield of a large acoustic transducer. Part III: General results," The Journal of the Acoustical Society of America, 75(3), March 1984, pp. 769-779.
	S	H.O. Berkta, "Possible Exploitation of Non-Linear Acoustics in Underwater Transmitting Applications," J. Sound Vib. (1965) 2(4), 435-461.
	T	i60c Phone User's Guide, Nextel Communications, 2002, pp. 6, 65, 66, 135-137.
	U	J. Berntsen et al., "Interaction of sound waves. Part IV: Scattering of sound by sound," The Journal of the Acoustical Society of America, 86(5), November 1989, pp. 1968-1983.
	V	J. Berntsen et al., "Nearfield of a large acoustic transducer. Part IV: Second harmonic and sum frequency radiation," The Journal of the Acoustical Society of America, 75(5), May 1984, pp.

Examiner	Date Considered
----------	-----------------

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVBP004
	Application No.:	10/826,537
	Applicant	Cheung et al.
	Filing Date	April 15, 2004
	Group	2644
		Page 3 of 4

		1383-1391.
	W	J. Meyer, "Microphone Array for Hearing Aids taking into Account the Scattering of the Head," 2001 IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, 21-24 October 2001, pp. 27-30.
	X	J. N. Tjøtta et al., "Propagation and interaction of two collinear finite amplitude sound beams," The Journal of the Acoustical Society of America, 88(6), December 1990, pp. 2859-2870.
	Y	J. Zemanek, "Beam Behavior within the Nearfield of a Vibrating Piston," The Journal of the Acoustical Society of America, Vol. 42, No. 1 (Part 2), 1971, pp. 181-191.
	Z	K. Aoki et al., "Parametric Loudspeaker-Applied Examples," Electronics and Communications in Japan, Part 3, Vol. 77, No. 1, 1994, pp. 64-74.
	AA	K. Maney, "Sound technology turns the way you hear on its ear," USA Today, May 2003, pp. 1-4.
	AB	M. Greenspan, "Piston radiator: Some extensions of the theory," The Journal of the Acoustical Society of America, 65(3), Mar. 1979, pp. 608-621.
	AC	M. Yoneyama et al., "The audio spotlight: An application of nonlinear interaction of sound waves to a new type of loudspeaker design," The Journal of the Acoustical Society of America, 73(5), May 1983, pp. 1532-1536.
	AD	M.A. Averkiou et al., "Self-demodulation of amplitude- and frequency-modulated pulses in a thermoviscous fluid," The Journal of the Acoustical Society of America, 94(5), November 1993, pp. 2876-2883.
	AE	M.B. Bennett et al., "Parametric array in air," The Journal of the Acoustical Society of America, Vol. 57, No. 3, March 1975, pp. 562-568.
	AF	Nextel i60c Phone Details, http://nextelonline.nextel.com , downloaded April 22, 2003, pp. 1-2
	AG	Nextel-Direct Connect, http://nextelonline.nextel.com/services/directconnect-popup.html , downloaded April 22, 2003, p. 1.
	AH	P.J. Westervelt, "Parametric Acoustic Array," The Journal of the Acoustical Society of America, Vol. 35, No. 4, April 1963, pp. 535-537.
	AI	Palm TM m515 Handheld, Palm Store of Yahoo! Shopping, downloaded April 23, 2003, pp. 1-2.
	AJ	Palm TM PalmModem [®] Connectivity Kit, Palm Store of Yahoo! Shopping, downloaded April 23, 2003, pp. 1-2.
	AK	Palm TM Tungsten TM C Handheld, Palm Store of Yahoo! Shopping, downloaded April 23, 2003, pp. 1-3.
	AL	Palm TM Zire TM 71 Handheld, Palm Store of Yahoo! Shopping, downloaded April 23, 2003, pp. 1-3.
	AM	T. Kamakura et al., "Suitable Modulation of the Carrier Ultrasound for a Parametric Loudspeaker," ACUSTICA, Vol. 73 (1991), pp. 215-217.
	AN	T. Kamakura et al., "Harmonic generation in finite amplitude sound beams from a rectangular aperture source," The Journal of the Acoustical Society of America, 91(6), June 1992, pp. 3144-3151.
	AO	T. Kamakura et al., "Nonlinearly generated spectral components in the nearfield of a directive sound source," The Journal of the Acoustical Society of America, 85(6), June 1989, pp. 2331-2337.
	AP	T.D. Kite et al., "Parametric Array in Air: Distortion Reduction by Preprocessing," Proceedings of the 16th International Congress on Acoustics and the 135th Meeting of the Acoustical Society of America, Seattle, WA, June 1998, pp. 1091-1092.
	AQ	T.G. Muir et al., "Parametric Acoustic Transmitting Arrays," The Journal of the Acoustical Society of America, Vol. 52, No. 5, Part 2, 1972, pp. 1481-1486.
	AR	V.P. Kuznetsov, "Equations of Nonlinear Acoustics," Soviet Physics-Acoustics, Vol. 16, No. 4, April-June 1971, pp. 467-470.

Examiner	Date Considered
----------	-----------------

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty. Docket No.	IPVBP004
	Application No.:	10/826,537
	Applicant	Cheung et al.
	Filing Date	April 15, 2004
	Group	2644
		Page 4 of 4

	AS	W.F. Druyvesteyn et al., "Personal Sound," J. Audio Eng. Soc., Vol. 45, No. 9, September 1997, pp. 685-701.
	AT	Y.W. Kim et al., "Novel Preprocessing Technique to Improve Harmonic Distortion in Airborne Parametric Array," ICSP '02 Proceedings, pp.1815-1818
	AU	Z.A. Gol'dberg, "Certain Second-Order Quantities in Acoustics," SOV PHYS ACOUST, Vol. 3, 1957, pp. 157-162.

Examiner	Date Considered
----------	-----------------

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.